GRAVIS™

ULTRASOUND™ PLUG & PLAY

BONUS SOFTWARE GUIDE

How to Use this Guide

Book Topics

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

Throughout this book, you can click on green-highlighted text to jump to a related topic.

To return, click the Back button in the tool bar.

Cakewalk Express
Sound Forge XP
Power Chords Debut

Go to Main Guide

Power Chords Debut

Power Chords Debut™

Click on green-highlighted text to jump to a related topic in the book

To return, click the Back button in the tool bar at the top of the page..

Note!

This software requires an UltraSound card with RAM installed on it.

Welcome

Power Chords Debut Basic Concepts

Cool Things You Can Do Right Away! — The Rhythm Editor

Fun With the On-Screen Guitar

Making a Chord Part in the Song

UltraSound Support: Banks and more!

Experimenting with Songs

Troubleshooting Guide

Upgrading to Power Chords Pro

Welcome to Power Chords Debut by Howling Dog Systems!

Power Chords Debut is a powerful music composition tool. It combines the best of a sophisticated drum machine, guitar chord computer, MIDI sequencer, and more. Its unique, object-oriented approach to music makes song writing quick and easy. Music objects are represented graphically so no knowledge of notation or MIDI data is required to make full use of the program.

Best of all, Power Chords Debut fully supports UltraSound patch caching and bank switching, so if your UltraSound card has RAM on it, you can access all its advanced features.

About This Manual

This manual does not cover every aspect of Power Chords Debut. Instead, it gives a fun (we think) introduction to the program. Full documentation for Power Chords Debut is available from the Help menu. Just press F1, or choose Help... from the main menu.

How to Get Started

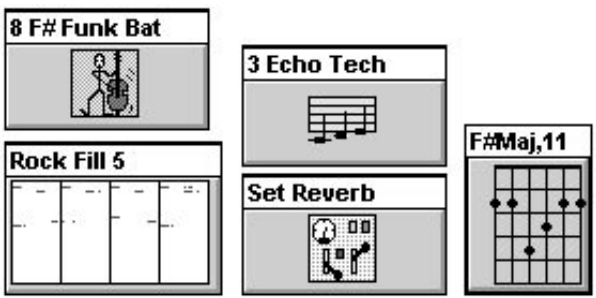
The best way to learn Power Chords Debut is to run the tutorials and demos included with the program. This manual contains lots of "Cool Things You Can Do Right Away" to get you making music instantly.

Power Chords Debut Basic Concepts

Music Objects
Power Chords songs are made up of "Music Objects:" Melodies, Bass Parts, Chords, Chord Rhythms, Drum Parts, and Controls

Power Chords Debut Music Objects

In Power Chords Debut, music is composed of small chunks of various types. These music "objects" include melodies, bass parts, chords, chord rhythms, drum parts, and controls.



To write a song in Power Chords Debut:

First, create (or import from another song) the objects that make up the song using the on-screen instruments, Rhythm Editor, or MIDI Input. Then drag the music objects into place in the Song window.

...Basic Concepts, cont'd.

Each type of music object has its own palette, or storage area. You can store objects in palettes until you need them, and you can copy objects to as many locations in the Song as you like.

Auditioning Any Part

Audition any music object or chord easily by clicking on it with the right mouse button. Power Chords Debut allows you to exchange different music objects at will as the song takes shape. Don't like the drum fill in bar 12? Try out two or three replacements by right clicking on them in the Drum Palette—choose one, and just drag it into bar 12. It's done!

Editing Parts

To edit a chunk of music, you simply drag it to the Rhythm Editor, make your changes, audition as you go, then drag the item back to its place in the song.

Palettes

Palettes are "holding places" for parts that you want to keep, but may

...Basic Concepts, cont'd.

or may not use in the song. They also provide a convenient place from which to load parts into the song.

Automatically Repeating Parts

Once you place a drum part, bass part, or chord rhythm in a bar in the song, it repeats automatically until you place a different part of the same type later in the song.

Pattern-Based Advantages

Most sequencers are track-based—they store music in linear tracks that run the entire length of the song. Power Chords Debut is pattern-based: the music consists of a number of patterns that can be easily swapped in and out of the song. A single pattern can appear more than once in the song, so you only have to record or enter the same information once. You can move a pattern into the song with one mouse movement, and change it just as easily.

Feedback

Power Chords Debut is designed to give you lots of auditory feedback throughout the songwriting process. The chord on the stringed

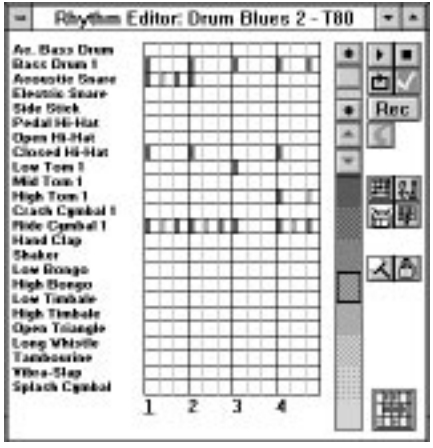
...Basic Concepts, cont'd.

instrument plays when you click the stringed instrument window with the right mouse button.

The right mouse button will also play any chord or rhythm phrase displayed on the palettes. Just click the desired item once. (Click on it again to stop playing.)

Cool Things You Can Do Right Away! — The Rhythm Editor

To use Power Chords Debut as a Drum Machine:

1. Hide all windows—hold the Shift key and click the main window button bar located on the left side of the screen.
2. Show the Rhythm Editor—click the top button in the main window button bar.
3. Show the Drum Palette—click the Drum button on the main window button bar. Move the Drum Palette so it doesn't overlap the Rhythm Editor.
4. Switch to editing drum parts—click the Drum button in the Rhythm Editor. The names of the drums are displayed down the side of the grid.

Rhythm Editor

5. Click in the grid to create notes, then click Play to play the part.

...The Rhythm Editor, cont'd.

Rhythm Editor Controls

To make a note louder or softer, click on it with the right mouse button and drag up and down.

Loop the part by clicking the *Loop* button. While it's looping, add or remove drum notes. Click the *Stop* button to stop looping.

Click the Resolution Scroll Bar in the Rhythm Editor (the only vertical scroll bar in the window). As you change the resolution, the number of grid divisions changes so you can make quarter notes, eighth notes, eighth note triplets and even smaller notes.

To save your part to the Drum Palette at any time, click the *Export* button (bottom right hand corner of the Rhythm Editor).

To play any of the parts in the drum palette, click them with the right mouse button.

To Make a Melody in Power Chords Debut:

1. Hide all windows—hold the Shift key and click on the main window button bar.

...The Rhythm Editor, cont'd.

2. Show the Rhythm Editor—click the top button in the button bar at the left of the screen.
3. Show the Melody Palette—click the Melody button (blue, with a staff and notes on it) on the main window button bar.
4. Switch to editing melodies—click on the Melody button in the Rhythm Editor. The title bar of the Rhythm Editor changes to "Rhythm Editor: Melody Untitled."
5. Click in the Rhythm Editor grid to create notes.
6. Play the part—click the Play button.
7. Click the Resolution Scroll Bar to change the default note sizes. Add notes of different lengths.
8. To save your part to the Melody Palette at any time, click the Export button (bottom right hand corner of the Rhythm Editor).
9. To play any of the parts in the Melody palette, click them with the right mouse button.

...The Rhythm Editor, cont'd.

Fancy Editing, Changing the Instrument Sound, and More!

To make longer notes in the Rhythm Editor, hold the Shift key, and click and drag to the right with the mouse.

To change the instrument sound of a melody, click the *Options* button (red check mark). This brings up the Edit Rhythm Parameters dialog where you can change all sorts of things.

Select a new instrument sound from the list by clicking on it. You can test how a part sounds by clicking in a blank area of the Edit Rhythm Parameters dialog with the right mouse button. Click *OK* to save your changes.

In the Rhythm Editor, move groups of notes by clicking the *Highlight* button (it has a curved arrow on it, beneath the loop button). Click and drag in the grid to encircle the notes you want to move. They turn red when selected. Once you have made a selection, click inside the selected area and drag to the new location. This method is handy for moving a part from one drum to another.

To copy groups of notes, highlight the notes as described above, then hold the Ctrl key while clicking on the selected notes and dragging.

Fun With the On-Screen Guitar

There are some really neat things you can do with the on-screen stringed instrument window, as well. It comes configured as a guitar, but it can be configured to emulate any stringed instrument such as banjo, guitar, bass, etc.

Stringed Instrument Window

Recording From the On-Screen Guitar

1. Hide all windows—hold the Shift key and click the main window button bar.
2. Show the Rhythm Editor—click the top button in the button bar at the left of the screen.
3. Switch to editing melodies—click the Melody button in the Rhythm Editor.
4. Show the Guitar—click the Guitar button on the main window button bar.
5. Click the Rec button on the Rhythm Editor.

...The On-Screen Guitar, cont'd.

You will hear the metronome click off 1 bar to prepare to record. After this bar, the beat marker in the Rhythm Editor moves to indicate that you are recording.

6. Strum the strings, bend strings, play chords with the right mouse button in the fretboard, or click new notes on the fretboard itself.

All this will be recorded. Now you can change the instrument sound of the recorded part and play back your melody.

More Fun Guitar Stuff—Including Bending Strings

To strum the strings, click and drag in the lower yellow rectangle below the fretboard. (The cursor changes to a pick when over the pluck, strum or bend areas.)

To bend the strings, click and drag in the blue rectangle below the fretboard. The string will bend up and down in pitch. To bend all the strings at once, click in the string bend rectangle with the both mouse buttons and drag back and forth.

To slide chords, click on one of the four direction arrow buttons. The chord will be shifted in the direction indicated.

...The On-Screen Guitar, cont'd.

To play Melodies on the fretboard, switch to Melody mode by clicking the *Melody* button in the Instrument window (the button with one note on it). Click or drag in the fretboard to produce sustained tones.

To change the instrument sound the guitar plays (yes, you can play a fretboard piano, organ, vibes or any of the 125 other sounds!), click the *Tuning Fork* button. Then click any of the buttons marked "P" for "Patch" to select new instrument sounds.

To use Chord Request, the built in "chord computer," click the button with the question mark on it. Now you can dial up all sorts of chords and hear them played.

Chord Parts

Making Chords on the Guitar

1. Switch to Chord mode—click the Chord button (button with 4 notes on it).
2. Make a chord—click in the fretboard, or use Chord Request to help you.

...The On-Screen Guitar, cont'd.

3. Show the Chord Palette—click the green button in the main window button bar with a picture of an artist's palette on it.
4. To save a chord to the palette, click the Export button (large button with arrow pointing right) once, or click the chord and drag it to the palette.
5. To add a "hammer-on" or "pull-off" to a chord, click the button below the export button with the grace note on it.

Now notes you click the fretboard will be "grace" notes. Click and hold the right mouse button in the guitar window to hear them.

Making a Chord Part in the Song

1. Make chords and store them in the Chord Palette (see above).
2. Show the Song window—click the Song button (second from the top) in the main window button bar.
3. Drag chords from the Chord Palette to each of the first four bars in the Song window—click the chords in the palette, hold the mouse button, and drag them to the bar in the Song window.
4. Now show the Rhythm Editor—click the top button in the main window button bar.
5. Switch to editing chord rhythms—click the Chord button (see previous illustration).

The title of the Rhythm Editor should change to read “Rhythm Editor: Chord Untitled.”

6. Create a chord rhythm—click notes in the grid.
7. Drag the chord rhythm to the first bar of the song—click the Export button, hold the mouse button down, and drag to the bar in the song window.

...Making a Chord Part, cont'd.

This is the rhythm that will be used to play the chords you dragged to the song previously.

8. Click the Play button to play the song.

The chord rhythm is used to play the chords in each bar. You can have a new chord rhythm any time you want (e.g., one per bar if it suits you), or you can stick with one or two. The chord rhythm will repeat until you put a new one in a following bar.

A chord rhythm is a strumming or plucking pattern used to play chords. A chord rhythm represents the pattern played by the right hand of a guitarist, plucking or strumming the strings, while the chords indicate where the left hand of a guitarist would fret the strings. The Chord Rhythm provides the timing information which indicates when the strings are to be played.

You can create an entire song by combining chord parts, drum parts, melodies, and bass parts which you create in the rhythm editor and store in palettes, or import from other songs.

To edit a rhythm from one of the palettes or from the song, click the

...Making a Chord Part, cont'd.

rhythm below its title and drag it to the Rhythm Editor. The Rhythm Editor will then switch to the correct type and display the part. Note that the part of that type that was already in the Rhythm Editor will be overwritten. The other parts of different types that you were working on are still there, and you can switch back and forth between them.

For a more complete overview of the program, please, please, please run the tutorials!

UltraSound Support: Banks and more!

Power Chords Debut has full built-in support for your UltraSound card. Patch caching (loading the needed instrument sounds into the RAM on your UltraSound card) is automatic.

Power Chords Debut also directly supports one of the most exciting parts of your UltraSound design—changing to different banks of sounds. This capability lets you access an unlimited number of sounds from Power Chords Debut using your UltraSound card.

Patches and UltraSound

Where the Instrument Sounds Come From

When you play MIDI music on your UltraSound from a program such as Power Chords Debut, the instrument sounds you hear come from 'patch' files—files containing digitally recorded samples of various instruments.

You can have any sound on your UltraSound

Applications like Power Chords Debut command the UltraSound card to load the needed instrument patches from your hard disk into the card's memory. It then plays the patches back at different pitches as

...Banks and More, cont'd.

instructed by the MIDI note commands sent to it. Any sounds that can be recorded (trumpets, violins, guitars, drums, cymbals, whatever) can be made into patch files for playback on the UltraSound. These sounds don't have to be instruments: they also include speech and sound effects.

Since the UltraSound gets its patches from your hard disk, you can replace or add to the sounds available. The UltraSound software also allows you to organize different patch files into groups, or banks. Power Chords Debut can specify different banks just by changing one command to the UltraSound card.

More Sounds For Your UltraSound

Howling Dog Systems UltraSound Power Patch CD-ROM

Your UltraSound, UltraSound Max, UltraSound Plug & Play, or certified UltraSound-compatible sound card is actually a sophisticated sample playback synthesizer. The card originally shipped with over 5 megabytes of sampled sounds.

How about launching into the sonic stratosphere with a blistering 40 megabytes of professionally recorded instrument sounds?

...Banks and More, cont'd.

You'll find over 750 instrument and drum sounds: everything under the sun, from blistering overdriven guitars and thundering pipe organs to hundreds of drum sounds of all descriptions, from classic analog synthesizer collections to sound effects.

The Power Patch CD-ROM adds many times the music power of your original UltraSound at a fraction of the cost. To make it simple to turbocharge your UltraSound with sonic power, we include all the information you need—bank setups so you can quickly switch patch sets, Power Chords .KIT files, and more.

You can access the preconfigured banks of sounds directly from Power Chords Debut or Power Chords Pro, right off the CD-ROM!

The Howling Dog Systems UltraSound Power Patch CD-ROM Volume 1 is only $99 US! Order today!

The CD-ROM contains all 10 patch sets listed below...or you can order diskette-based patch sets "a la carte" ($29.95 each).

...Banks and More, cont'd.

Patch Sets on Diskette

FD-1 Real Instrument UltraSound Patch Set
FD-2 UltraSound Drum Patch Set
FD-3 Super Sound Effects UltraSound Patch Set
FD-4 UltraSound Analog Synth Patches

WOFS-1 Wall of Sound 707/808/909 Drum Kit Collection
WOFS-2 UltraSound Dance/Pop Patch Set Collection
WOFS-3 Latino Collection
WOFS-4 Sound Effects 1 Collection
WOFS-5 Techno/Rave Collection
WOFS-6 Super/Dance Loops Collection

Order one or more of these exciting patch sets created by the such sound pros as Francois Dion of IdMEDIA, and the experts at Wall of Sound Productions. Because the UltraSound holds its sounds in RAM, adding a new set of patches is almost like getting a whole new sound card for a fraction of the cost.

Phone 1-800-267-HOWL and order your Power Patch CD-ROM for only $99 US* today!

*Please include $5 US for air mail shipping in Canada or the US. Outside Canada and the US, add $10 US for shipping. For Federal Express overnight shipping in Canada and the US only please add $15 US.

...Banks and More, cont'd.

UltraSound Options: Bank Switching and More

Power Chords has a special UltraSound Options dialog box available. To access it from Power Chords Debut, select *MIDI...* from the Main Menu, then *UltraSound Options*....

When you use additional UltraSound patches such as those on the Power Patch CD-ROM, your IW.INI file is updated with the new banks, file names, and locations. You can then select which banks to use from the UltraSound Options dialog.

The UltraSound Options dialog displays the Patch Memory Left on your card, and lets you set alternate melodic and drum banks.

When you edit the Rhythm Parameters in the Rhythm Editor (by clicking the red checkmark button), you will find a similar set of list boxes to select the Drum and Melodic banks.

Getting Instant Bank Info

Both dialogs have an *Info*... button. Click it to see a list of Melodic and Drum bank information as listed in the IW.INI file. It also lists any banks that are defined more than once.

...Banks and More, cont'd.

UltraSound Options Dialog Box

Automatic Fallback to the Default Bank

UltraSound banks do not have to include entries for every patch; a bank can include as little as one patch. If you select a patch that is not defined in the current bank, your UltraSound selects the patch from Bank 0, the default General MIDI bank.

Experimenting with Songs

Changing Instrument Sounds for Individual Parts

Here's a fun way to experiment with some of the sample songs provided with Power Chords Debut.

1. Hide all windows—hold the Shift key and click the main window button bar.
2. Load a song—select File... then Open from the Power Chords Debut menu bar. Choose a sample song, for example one of the demo songs.
3. Double-click on melodies (blue) , or bass parts (purple) to bring up the Edit Rhythm Parameters dialog box.
4. Change the instrument sound for the part—click the instrument list.
5. Hear your changes—click on a blank area of the dialog (e.g. just to the left of the instrument list) with the right mouse button.

You will hear the part played with whichever instrument you choose.

...Experimenting with Songs, cont'd.

Reorchestrate, or be a producer! Change the instruments the way you think they should be! Have a blast!

To Change the Instrument for the Chord Part

...continuing from the previous example:

1. Show the guitar window—click the Guitar button on the button bar.
2. Click the Tuning button on the guitar window. It has a small tuning fork on it. This shows the Instrument Tuning dialog.
3. Click one of the buttons marked with a "P" to access the Instrument Sound Selection dialog. Select a new instrument sound.
4. Click OK, then OK in the Tuning dialog to return to the program.
5. Strum the strings on the guitar, or click with the right mouse button in the fretboard to hear the guitar played with a new sound!
6. Play the song to hear how the chord part sounds with its new instrument.

...Experimenting with Songs, cont'd.

To change the instrument sound for a single part in a palette, double-click on it to bring up the Edit Rhythm Parameters dialog.

Song Window Overview

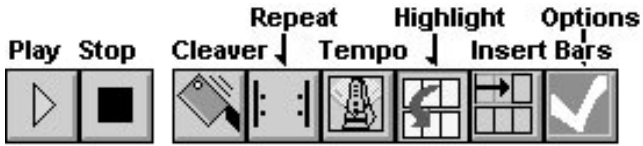
The Song window provides a bar-by-bar framework for song creation. You drop the various music elements (chords and rhythm phrases) into place in the Song window to create a song. You can configure the display in many ways to show you the information you need to perform the current editing task, and edit options are available for copying, moving, and deleting song elements.

There are "slots" in each bar to hold parts of the various types including chords, chord rhythms, drum parts, melodies, bass parts and control parts.

NOTE: Chord rhythms, bass parts, and drum rhythms automatically repeat in the Song window, so you do not need to insert a repeating pattern more than once consecutively. A chord rhythm or drum pattern, once in the song, repeats until superseded by a different one.

...Experimenting with Songs, cont'd.

Song Window Controls



Play. Starts the song playing.

Stop. Stops the song playing.

Cleaver. Sub-divides bars for putting in multiple chords.

Repeat. Click to enter a repeat.

Tempo. Click to enter a tempo change.

Highlight. Click, then click and drag in the bars to highlight bars for copying, deleting, moving, or to indicate the area to insert blank bars over.

Insert Bars. Inserts bars over highlighted area and shifts existing bars in that area to the right.

Options. Accesses the Song Options dialog to control display, time signature, which items play

...Experimenting with Songs, cont'd.

Playing the Song

Click on the *Play* button to play the song. Your selections in the Song Options Dialog (accessed via the red checkmark button) determine which parts you hear when you play the song.

Click the *Stop* button to stop playing the song.

Playing the song from a particular bar

Double-click a blank part in the bar where you want to start playing.

Playing a single part in the song

Click the right mouse button on a part or chord in the song to hear it alone.

Playing a single particular bar

Click the right mouse button on a blank part of the bar you want to hear.

Playing the rest of the song from a particular bar forward

Double-click on a blank part of the bar you wish to start from.

...Experimenting with Songs, cont'd.

Importing Parts From Other Power Chords Files

Power Chords Debut can audition and quickly import chords, drum, melody, bass, control and chord rhythm parts from other Power Chords Debut and Power Chords Pro files. This facility makes it easy to re-use parts from other files, build libraries of parts, etc.

To import parts from other Power Chords files, choose *Import From Power Chords File* from the File menu. Select the file you want to import from.

The Select Items to Import dialog box lets you choose parts to audition and import from either the palettes of the song file you selected or the song itself.

To audition a part for importing, click on its name with the right mouse button. Click again with the right mouse button to stop playing. This will sound chords as well. When you audition a part, the name of the part selected is displayed in the upper left corner of the dialog box.

To select a part for importing, click on it with the mouse. It will be highlighted if it is selected for importing.

...Experimenting with Songs, cont'd.

To select all parts of one type for importing, click the type label button above the list of parts of that type. Click on it again to clear the selections.

To import the marked parts, click the *Import* button.

Exporting the song to a MIDI file

To export your song as a standard type 1 MIDI file, choose File/*Export to MIDI File* from the main menu. Enter a valid filename for the MIDI file. Your song will be saved to that file.

Standard MIDI files can be used by many other DOS and Windows music programs, or played using the Windows Media Player.

Troubleshooting Guide

Why don't I get any sound?

Power Chords Debut UltraSound Edition uses the UltraSound MIDI Synth driver and is pre-configured to use this driver. If you just can't get it to work, try all the drivers available from the MIDI Configuration Dialog (Select MIDI..., then MIDI Configuration... from the main menu bar).

If you are still not getting any sound, check the following:

1. Are your sound card and MIDI interface properly installed?
2. Are your speakers or headphones plugged in properly?
3. Is the volume turned up on the sound card or mixer program?
4. Is the proper Windows driver installed—the most current version?
5. Check sound with another program (e.g.: Media Player). If you can play a MIDI file with the Media Player, your drivers are okay, and you have to select the correct output driver in Power Chords Debut.

...Troubleshooting, cont'd.

6. Is another program competing for the sound resource?

I have stuck notes (notes that don't turn off).

To clear stuck notes, choose the *Panic Button* from the MIDI menu. This will stop all stuck notes from playing.

I don't hear all the parts in my song.

Check the Song/*Options* dialog box play parameters. The song parts missing may be turned off.

I have sound when auditioning parts, but when I play a song, parts are missing.

You may be running out of patch memory. We recommend that you increase the memory on your UltraSound to at least 1 MB: contact Advanced Gravis for more information on this.

I can't change the instrument for the chords.

The instrument patch for the chord part of any song is changed in the Instrument tuning. Click the little tuning fork button on the Instru-

...Troubleshooting, cont'd.

ment window, and change the patch by clicking on the button marked "P."

I put chords in the song, but don't hear them.

Chords in the song will not play unless accompanied by a Chord Rhythm. In the Rhythm Editor, switch to editing Chord Rhythms, click in some notes in the grid, and drag the part to the song.

I created a new bank, but the sounds don't play, even though they show in the instrument lists.

Make sure that the patches you specify in your bank are actually at the location indicated by the PatchDir= statement. In other words, make sure your PatchDir statement actually indicates where the patches are to be found.

You can check out your IW.INI file by clicking the *More*... button in the UltraSound Options or Edit Rhythm Parameters dialogs. This function automatically checks for repeated bank numbers.

Make sure you didn't put patch file names in the IW.INI file with .PAT extensions. For example, 1=anasyn12 works but 1=anasyn12.pat does

not.

Make sure that you do not repeat any patch numbers in your bank. Make sure that you do not have more than one bank with the same bank number in the IW.INI file. (Click the *Info*... button to check this—see above). Make sure that you have not misspelled the names of any patch files. If you have a mistake in a bank, any entries in the bank below that one will not load.

I can only store melodies in the top slot.

This is part of the design of Power Chords Debut. You can load songs that have up to 16 melodies in a bar, but can only store melodies in the first slot. Power Chords Pro will let you access all the melody slots.

UltraSound Options Dialog

Upgrading to Power Chords Pro

We hope you're enjoying Power Chords Debut. We packed a lot of features into this version of our award-winning composition product, Power Chords. The Pro version has even more features and exciting capabilities to bring your music to life!

We are pleased to offer a very special price on the full retail version of Power Chords Pro for Power Chords Debut owners.

Upgrade to the full retail version of Power Chords Pro for a special price of only $79 US!

Power Chords Pro (list price $199.95 US) is even more powerful than Debut. Here are some of the added features you can expect:

A Full 16 Melodies per Bar. Access up to a full 16 melody parts per bar for complete creative freedom!

Power Effects Generate Cool Sounds! Power Chords Pro's Power Effects can actually generate realistic-sounding strums (up, down, and alternating), drum rolls, alternate picking effects, and more. Quantize effects, humanize parts, arpeggiate, and create random patterns—give your creativity a boost!

...Upgrading to Power Chords Pro, cont'd.

Standard MIDI File Import Opens Up Thousands of Sources of Drum, Melody, and Other Parts. This terrific feature gives you access to the output of dozens of music and sequencer programs, and the literally thousands of MIDI files available on BBSs. Bring a track at a time into Power Chords Pro, or just a few bars. Audition every bar and track if you like. Power Chords Pro automatically creates a consolidated drum track containing all the drum sounds, making it a snap to import and use drum parts from MIDI files.

Global Part Editing. Want to change the instrument sound of all bass parts in a song? Switch the melodies on channel 4 up an octave? Or make all the drum parts just a bit louder? With Global Editing, you can accomplish any of these feats from a single set of controls with just a couple of mouse clicks!

Alter key characteristics of all parts of a type in a single action. Filter by MIDI channel, etc., to select just the parts you want to change. Change MIDI channels, alter velocities, or change instrument patches for up to 128 parts at once.

Unlimited MIDI Access. With the full retail version of Power Chords Pro, you can use any MIDI input or output device you like.

...Upgrading to Power Chords Pro, cont'd.

Includes a comprehensive, 120-page, spiral-bound manual.

Phone 1-800-267-HOWL and order your Power Chords Pro Upgrade for only $79 US (plus shipping) today!

Please include $5 US for air mail shipping in Canada or the US. Outside Canada and the US, add $10 US for shipping. For Federal Express overnight shipping in Canada and the US only, please add $15 US.

Sound Forge XP

Sound Forge

Click on green-highlighted text to jump to a related topic in the book

To return, click the Back button in the tool bar at the top of the page..

Complete documentation and tutorials for Sound Forge are included in the program's online help. Just double-click the Sound Forge icon to start the program, and go to the Help menu for instructions.

Cakewalk Express

Cakewalk Topics

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Introduction

Installation

The Virtual Piano

Basic Tutorial

Editing Tutorial

Troubleshooting & Tech Support

Go to Main Guide

Chapter Topics

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

Music Made Easy

Online Help

Music Made Easy

Click on green-highlighted text to jump to a related topic in the book

To return, click the Back button in the tool bar at the top of the page..

Right on your PC! Now anyone with a PC and a sound card can experience the creation of music. Cakewalk Express™ is a multi-track MIDI recording studio for Windows. Cakewalk lets you record, edit, and play back music on your sound card or external MIDI instrument. Cakewalk Express also lets you insert wave audio files and MCI commands into your Cakewalk tracks for multimedia sequencing.

Cakewalk Express includes the **Virtual Piano™**, an on-screen musical instrument that you play with your mouse or computer keyboard. This is the easiest way for you to begin creating music with Cakewalk.

✳ **Remember to complete and return your Cakewalk registration card today, so you can receive important information about your Cakewalk software!**

Your product registration card is included in your UltraSound package. If your package is missing a registration card, please call us right away.

Online Help

At any time while you're using Cakewalk, including during the tutorials in this manual, you can get context-sensitive help by pressing F1.

If you are unfamiliar with Windows programs' Help systems, please see your *Microsoft Windows User's Guide*.

Chapter Topics

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

Checking Your Windows 3.1 Setup

Running Cakewalk Setup

The Latest News

Installing a Windows MIDI Driver

Connecting MIDI Equipment

Starting Cakewalk

Step 1. Check Your Windows® Installation

Before you install Cakewalk, you should make sure that you've correctly installed Windows 3.1 or Windows 95.

- **Cakewalk does not install or run under Windows 3.0.**

Avoid Windows 3.0 Video Drivers. Make sure you have the latest Windows 3.1 drivers for your video adapter. Most newer 3.1 drivers are faster, which makes all Windows programs faster. More important, some 3.0 video drivers may cause problems when used with Windows 3.1.

Use the Control Panel to Remove Drivers. If you have ever added drivers to or removed them from your system, you have probably used the Windows Control Panel to do so. Removing drivers by any other method (such as simply deleting or renaming a .DRV file) can cause problems. If there is a possibility that you have done this, retrace your steps and remove the driver the correct way, with the Control Panel.

Step 2. Run Cakewalk SETUP

Follow the instructions in your UltraSound Quick Start to install the Cakewalk Express software from the Software CD.

Step 3. Read the Latest News!

Cakewalk SETUP installs an icon for the README.WRI file. Double-click this icon to view the Cakewalk README.WRI file. This file contains important information about changes or additions after the documentation was completed.

Step 4. Make Sure the Windows MIDI Driver is Installed

Windows® 95 MIDI Drivers

If you are running Windows 95, skip these steps. Simply select the Multimedia icon in the Control Panel, click the MIDI tab. Make sure that MIDI for UltraSound Plug & Play is the selected MIDI output. If it is, the correct MIDI driver should be installed.

Cakewalk uses the Multimedia Extensions in Windows 3.1 to talk to MIDI interfaces and sound cards. The Multimedia Extensions provide a way for applications to talk to different kinds of MIDI interfaces and sound cards through drivers. The correct UltraSound Windows drivers should have been installed during your UltraSound installation. To make sure:

1. Double-click the Windows Control Panel.
2. Double-click the Drivers icon.
3. Make sure that the following drivers are listed in the "Installed Drivers" list:

   MIDI Mapper
   {MCI} MIDI Sequencer
   MIDI for UltraSound Plug & Play
   TIMER
   {MCI} Sound

4. If any of the first four drivers are missing, click the Add button, and select the correct driver from the list.
5. If the UltraSound driver is missing, run the UltraSound Setup program from your UltraSound software disks.

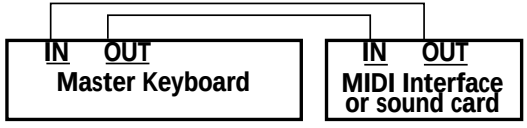
Step 5. Connect Your MIDI Equipment

Review this section only if you are connecting an external MIDI instrument to your sound card or MIDI interface.

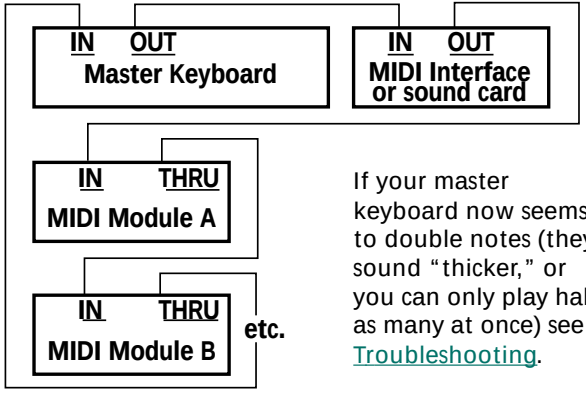
Otherwise, skip to Step 6.

If your keyboard has only two jacks—MIDI IN and OUT:

Connecting a MIDI keyboard to a MIDI interface or sound card without MIDI THRU jack



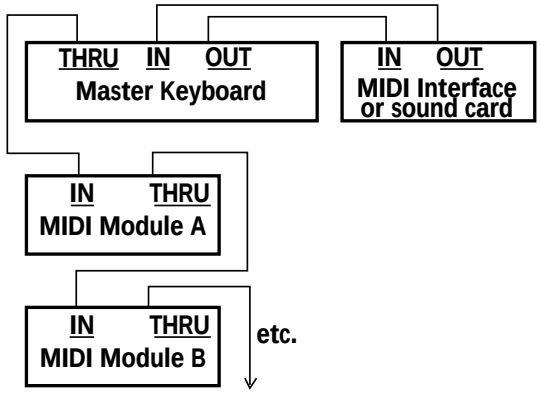
Connecting MIDI keyboard and other MIDI modules to a MIDI interface or sound card without a MIDI THRU jack.



If your master keyboard now seems to double notes (they sound "thicker," or you can only play half as many at once) see Troubleshooting.

...Connecting MIDI Devices, cont'd.

If your keyboard has a MIDI THRU jack:



Connecting a MIDI keyboard and other MIDI modules to a MIDI interface or sound card with a MIDI THRU jack.

Here's a checklist:

Connect this:		**To this:**
Master keyboard OUT	➪	MIDI interface IN
MIDI interface OUT	➪	Master keyboard IN
Master keyboard THRU	➪	Another MIDI module's IN

Step 6. Start Cakewalk

Cakewalk SETUP installs a new Program Manager group.

To run Cakewalk, double-click the icon.

The first time you run Cakewalk, it displays the same dialog box that the Settings | MIDI Devices command uses. This lets you select which MIDI In and MIDI Out devices you want Cakewalk to use. Each item in the list is a driver that you've installed using Windows Control Panel.

- Select MIDI MAPPER for your MIDI Out device. You must choose at least one MIDI Out device. Click the device name to select it, then click OK. MIDI Out devices are assigned to Cakewalk port numbers in the order they are listed.
- Make sure to select the Virtual Piano as a MIDI Input device if you plan to use it. If you also have a MIDI instrument connected to your sound card through a MIDI interface, select UltraSound MIDI In Port as well.

✳ **Remember that after you add or remove a driver in the Windows Control Panel, you must restart Windows for the change to take effect.**

The Virtual Piano

Chapter Topics

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

Starting the Virtual Piano

Switching Between Cakewalk Express and the Virtual Piano

The File Menu

The Settings Menu

The Help Menu

Instrument Sounds for the Virtual Piano

Playing the Virtual Piano with your Computer Keys

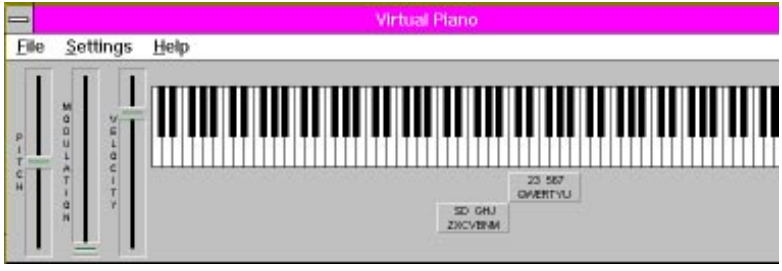
Playing the Virtual Piano with your Mouse

Fader Controls

To Start the Virtual Piano

Double-click on the Virtual Piano icon (it's located in your Cakewalk Express program group).

The Virtual Piano is an on-screen musical keyboard. The Virtual Piano turns your keyboard and mouse into real-time MIDI instruments. The Virtual Piano itself has no sound capability, but it will play music through your sound card, your PC speaker, or any external MIDI instruments you have connected to your system.



The Virtual Piano will also work with other Windows programs that use standard Windows MIDI drivers for input.

During Setup, Cakewalk Express automatically installs the Virtual Piano and its Windows driver for you.

Using the Virtual Piano with Cakewalk Express

Make sure you have both programs running. If you have not already selected the Virtual Piano as a MIDI input device in Cakewalk, please refer to the previous chapter.

Switching Between Cakewalk Express and the Virtual Piano

To move directly between Cakewalk and the Virtual Piano, press Ctrl-K from either program. You can also use ALT-TAB to move between these and other Windows programs you have running.

The File Menu (Alt-F)

The Virtual Piano's File menu includes two options:

ü **Activate Cakewalk Ctrl-K**

Select this option to move into Cakewalk. Cakewalk must already be running. The Ctrl-K shortcut keys will toggle you back and forth between programs.

ü **Exit**

Closes down the Virtual Piano.

Settings Menu (Alt-S)

There are two options in the Settings menu. Check and uncheck these options to select and deselect them.

ü Use PC Speaker

The Virtual Piano will play music on your PC speaker as well as on your sound card or MIDI instrument.

ü Always on Top

This keeps the Virtual Piano window in the foreground of Microsoft Windows, even when it's not activated. This option is useful when you are moving frequently between Cakewalk and the Virtual Piano. When this option is unchecked, you can still move quickly between the programs by pressing the Ctrl-K keys.

Help Menu (Alt-H or F1)

Select **Help | Contents** for a list of all Virtual Piano Help topics, or select Help | Search to search for a particular topic or command.

You can also press F1 from anywhere in the Virtual Piano for context-sensitive Help.

Instrument sounds for the Virtual Piano

With Cakewalk running, the Virtual Piano lets you play through the MIDI channel and patch of the currently selected Cakewalk track. If you change the patch of that track, the Virtual Piano will play the new sound. See the **Basic Tutorial** chapter for more information on this feature.

Playing the Virtual Piano with your Computer Keys

Related Topics:

Changing Octaves

Holding Notes

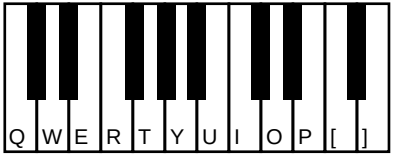
Sustain Pedal

To play the musical keys with the computer keyboard, use the top two and bottom two rows of the keyboard. Each pair of rows begins on the note C. Although you can change the octaves for each pair (as described below), the computer keys are set to always play the same musical notes. As you press the computer keys, the corresponding notes on the Virtual Piano are highlighted with a blue dot.

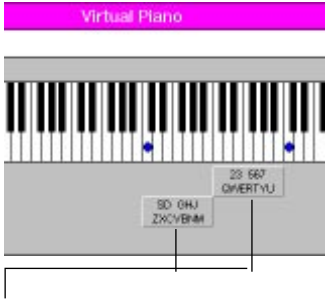
The note name for the most current note is displayed in the upper left corner of the Virtual Piano screen. So for example, if you play middle C on the Virtual Piano keys, the note name C5 is displayed in the upper left corner.

The upper row of each pair represents the black notes or "half steps" on a piano. Notice that some keys on these upper rows are not active, to correspond with the gaps found between the black keys on a real piano.

Top pair of computer keyboard rows

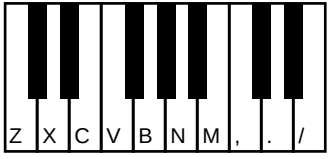


...Playing the Virtual Piano with Computer Keys, cont'd.



Click and drag the octave selectors left or right to change the octaves up or down on the Virtual Piano.

Bottom pair of computer keyboard rows



Changing the Octave

Each pair of computer rows may play a different octave of the musical keyboard. Click on and drag each octave selector horizontally to match the octave you wish to play.

ß and à Adjust top row octave mapping up and down

Æ and â Adjust bottom row octave mapping up and down

Holding Notes

Press and hold the SHIFT key to turn on two or more notes at the same time. The notes remain on as long as you hold the SHIFT key.

Use the CAPS LOCK key to set the SHIFT state on or off without having to hold the SHIFT key. Use the SPACEBAR to turn off all notes held by CAPS LOCK.

...Playing the Virtual Piano with Computer Keys, cont'd.

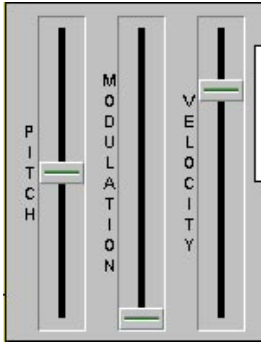
Sustain Pedal

Use the CTRL key to send a MIDI sustain pedal message (MIDI controller 64). This is different from actually holding down the notes on the keyboard. It is like using the sustain pedal of a piano to hold the notes, even though you have released the keys. Press the CTRL key to push down the sustain pedal, and release the CTRL key to lift the pedal.

Playing the Virtual Piano with your Mouse

To play the musical keys with the mouse, point to them and click. You can use the SHIFT, SPACEBAR, CTRL, and CAPS LOCK keys to hold and sustain notes with mouse clicks, too.

Fader Controls



On the left side of the Virtual Piano are three faders: Pitch, Modulation, and Velocity. Each can be used as you play the Virtual Piano. These faders do not work with the PC Speaker option.

✳ **The exact effect of Pitch, Modulation, and Velocity depends on the synthexizer or sound card you are using. If there doesn't seem to be any effect when you move a slider, it's probably because your synthesizer or sound card does not respond to that MIDI controller.**

Pitch Bend Slider

The Pitch Bend slider sends a MIDI pitch bend message. On most synthesizers and sound cards, this "bends" the pitch higher or lower. The Pitch Bend slider snaps back to the center position when you release it, just like on most professional music keyboards.

Shortcut Keys:

INSERT and DELETE—Increase and decrease pitch bend slider

Modulation Slider

The Modulation slider sends a MIDI modulation wheel message. On most synthesizers and sound cards, this adds "vibrato" or some other effect.

...Fader Controls, cont'd.

Shortcut Keys: HOME and END—Increase and decrease modulation slider

Velocity

The Velocity slider changes the velocity (the striking speed) of the musical keys you press. On most synthesizers and sound cards, this makes the notes louder or brighter.

Shortcut Keys: PAGEUP and PAGEDOWN—Increase and decrease velocity slider

Chapter Topics

Tutorial Startup Checklist
Cakewalk and General MIDI Instruments
The Screen Layout
Moving Around the Track/Measure View
Selecting Commands
Loading a Song File
Playing
Changing the Tempo
Muting a Track
Looping Tracks
Adjusting Fader Levels
Recording
Saving Your Music
Opening Other Views
Ending a Cakewalk Session
Summary

Tutorial Startup Checklist

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

In this chapter, you will go through Cakewalk's basic playing and recording functions. This section assumes that you have already installed Cakewalk Express and the Virtual Piano. If you have not already done so, please read the **Installation** chapter now.

Before you start this tutorial:

1. Have both Cakewalk Express and the Virtual Piano running. You can use the ALT-TAB or CTRL-K keys to move between the two programs.
2. From the Virtual Piano, select **Settings | Always on Top**.
3. Resize the Virtual Piano window so that you can still see Cakewalk's Track/Measure view above it. This way you will be able to move between Cakewalk and the Virtual Piano more easily.
4. From Cakewalk, make sure that you have selected at least one MIDI Input and Output device for Cakewalk, using the **Settings | MIDI Devices** command. TTS Virtual Piano In will appear as an available MIDI Input device. Be sure to select it.

Cakewalk and General MIDI Instruments

By default, Cakewalk Express uses General MIDI (GM) patch names, note names, bank numbers, and MIDI controllers. Many of today's popular sound cards are GM-compatible. If your sound card or MIDI keyboard is GM-compatible, you are ready to begin loading and playing MIDI sequences in Cakewalk. If you are not using a GM-compatible instrument, you need to tell Cakewalk what kind of instrument you have.

See the Settings Menu chapter to learn how to define your MIDI instrument in Cakewalk using the **Settings | Instruments** command.

The Screen Layout

The Cakewalk screen is divided into several sections.

Menu Bar

Along the top line of the screen are the titles of the drop-down menus. Use these menus to choose commands.

Press F1 while you have a menu command selected to receive Online Help for that specific command.

Control Bar

Below the Menu bar is the Control bar. This contains various buttons and information that you need to access frequently.

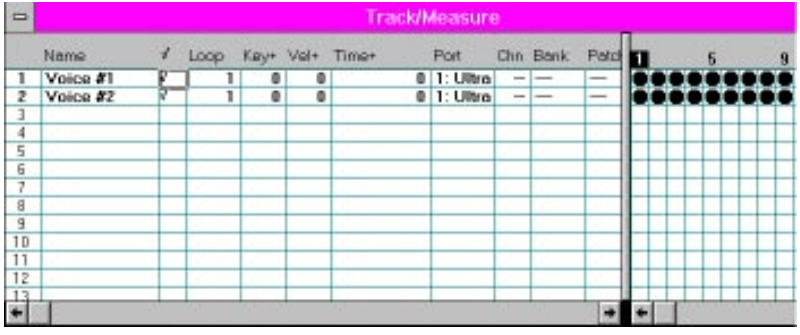
Message Line

Cakewalk uses the line at the very bottom of the window to display temporary messages.

Moving Around the Track/Measure View

When you first start Cakewalk, the program displays the Staff view (bottom half of screen) and the Track/Measure view (top half of screen).

Now take a look at the Track/Measure view. The left half shows tracks' parameters. The right half shows tracks' measures.



Moving the highlight

The highlight (the red outline) shows you which is the current track and column. You can always select a track and column by clicking the

...Moving Around the Track/Measure View, cont'd.

mouse, or you can use the four arrow keys—UP, DOWN, RIGHT, and LEFT—to move around. Try this now. Press DOWN twice; the highlight moves down two lines.

* **These keys are often located on the numeric keypad at the right side of the keyboard. If the keys are acting as numbers rather than arrow keys, try pressing the NUMLOCK key.**

Notice that whatever line you have the highlight on has its number drawn in a different color. This means the track is the current track. The current track is automatically considered selected. Many Cakewalk commands operate on the selected track. (Most commands can also operate on more than one track at once; later you'll learn how to select more than one track.)

Selecting Commands

You tell Cakewalk what you want to do by selecting commands from the menus.

The Menu bar

If you look at the top line of the Cakewalk screen, you'll see a series of names, like File, Edit, View, Realtime, and so on. Each one is the title of a menu. When you open one of these menus by clicking its name, you'll see a list of commands. You can open menus and choose commands either by clicking on them, or by using the computer's keyboard.

Try opening a menu now. If you want to use keys to open menus and choose commands, follow these steps:

1. Press and hold down the ALT key.
2. Press the underlined letter in the menu's title: for this example, press the **F** key to open the **File** menu. The File menu drops down beneath the title.
3. Release both keys.

...Selecting Commands, cont'd.

Each line of the menu contains the name of a command. Windows highlights the first command. If you press DOWN, the highlight moves down through the choices. Pressing UP takes you in the other direction.

Once the highlight is over the choice you want, press ENTER to choose it. Do not try this yet; we will try it later in the tutorial. To choose a command with the mouse, simply click it.

Remember, when the highlight is over a command, you can press F1 (then release the mouse button, if you're using it). The F1 key is the Help key. It opens the Online Help and displays instructions for the highlighted command.

If you want to get out of the menus, press the ESCAPE key. You can use ESCAPE in many places in Cakewalk to back out of something if you change your mind.

4. If you performed the first three steps, try this now. Press ESCAPE twice, and continue on to the next section.

Loading a Song File

For this tutorial, we'll load a demonstration song and manipulate it.

1. From Cakewalk's main menu, select the **File | Open** command to load a song from a disk file.

Cakewalk displays the Open dialog box. Within the window is a collection of Cakewalk song files (.WRK format). These professionally recorded MIDI sequences are useful learning models, and can be used as frameworks for your original recordings. You can copy sections of a file and use them in another musical sequence. Or use these files for "practising" an editing procedure, or to create new arrangements.

✳ **A variety of musical styles are represented in these song files. After you complete this tutorial, take the time to explore all these files, and be sure to read the important file information provided in the File | Info pop-up box. Try viewing different tracks in the Piano Roll, Event List, Staff, and Track/Measure views, to help you get familiar with Cakewalk and MIDI sequencing.**

2. Select **bookie.wrk** from the list of included song files and click **OK**.

Cakewalk loads boogie.wrk. The first couple lines of the Track/Measure view now have names and numbers. The **File | Info** box will automatically pop up.

...Loading a Song File, cont'd.

Take a moment to read through the File Info box for boogie.wrk. It explains how this sequence was created and arranged, and suggests ways that you can interact with it. Press ESCAPE or ENTER when you are finished reading the Info box.

3. Boogie.wrk includes System Exclusive (sysx) data for GS-compatible instruments. This sysx data is set for **Auto Send**. Click the **OK** button on the pop-up **Sysx Auto Send** message. (The sysx data has no effect on non-GS instruments or sound cards. You can also select Cancel.)

4. Notice that track 1 of boogie.wrk (named "Play-thru track") is preselected in Cakewalk. Track 1 is set up for you to use for the Recording section of this tutorial.

Playing

Now that you've loaded boogie.wrk, let's try playing it. First, a quick checklist:

- To hear music playback, you need to have your MIDI sound source (your sound card or external MIDI synthesizer) set up and connected as described in the section in Chapter 1 on **Connecting MIDI Devices**.
- If you are using an external MIDI synthesizer, set it to receive on MIDI channels 1, 3, and 10. If you are unsure how to set the MIDI channel, now would be a good time to check the owner's guide.

All set? Let's go!

1. Press the SPACEBAR or click the play button.

Boogie.wrk will begin playing. In the top-left corner of the Cakewalk window, you can see some numbers changing. This is the Now marker, which shows the current count of measures, beats, and ticks (divisions per quarter note). For instance, "1:1:0" is measure 1, beat 1, tick 0.

✳ **If you don't hear anything, but the Now Marker numbers are advancing, refer to Troubleshooting.**

...Playing, cont'd.

2. After letting the song play for a while, press the SPACEBAR or click the play button again to stop playback.

Note that you use the same key to start and stop playback.

3. If you start playback again, Cakewalk picks up again where you stopped it.

4. Now try clicking the rewind button in the Control bar.

This returns the Now time to the beginning of the song.

Changing the Tempo

You can speed up or slow down the tempo of a song during playback. This is useful when you are trying to find a comfortable tempo for recording.

1. Locate the Tempo Offset controls on the Control bar. They are located just to the left of the meter/key display.
2. Start playback of boogie.wrk.
3. Position the mouse cursor on the spin arrows next to the Current Tempo display, and click on the Up and Down arrows to hear the tempo change.
4. Now click on the three Tempo Ratio buttons located below the Current Tempo display. By default, these buttons play the music at .5, 1, and 2 times the speed of the current tempo setting. They give you a quick way to fast-forward or slow down a playing song file. You can modify the default Tempo Ratio values by clicking on them and entering new values.

✳ **There are also ways to control the tempo of a song file graphically. Choose Tempo View in the Online Help for more information.**

Muting a Track

There are times when you want to hear only one track at a time, or a specific combination of tracks in a multi-track song. These steps show you how to mute tracks you don't want to hear.

1. Start playback.
2. While the song plays, point to track 2 in the column that has the checkmark (ü) at the top.
3. Double-click track 2's ü .

The ü changes to an **m**, and Cakewalk mutes the track. What you still hear is track 3.

4. Double-click the **m**.

Cakewalk changes the track again, and you can hear it.

✳ **Pressing ENTER also toggles this mute/play switch.**

Looping Tracks

You can have any or all tracks of a song file repeat playback. This is called looping a track. This can be useful when you wish to play over a repeating rhythm section, or want a song file to repeat playback automatically. Tracks can loop up to 9,998 times without stopping playback. Let's try looping a track.

1. Rewind boogie.wrk to the beginning.
2. Select track 2, and click on the Loop field. Type in the number 2 and hit ENTER. You can also hold down the left mouse button while in that field and slide the mouse to "scroll" in a looping value.
3. Repeat step 2 on track 3.
4. Click the Play button to hear tracks 2 and 3 loop twice completely.

✳ **For more information on looping tracks, refer to Online Help.**

Playing Music in the Staff View

Cakewalk Express automatically displays the Staff view (below the Track/Measure view) when you load a song file.

The Staff view is where you can see and edit music as standard notation. You can view up to 24 tracks at a time, with each track assigned to a separate clef. A track can also be assigned two staves—a treble and a bass clef. (You would need to scroll down in the window to see all 24 staves.)

1. Click on the Staff view now to activate it. You can resize the windows to view all three tracks.
2. Use the horizontal and vertical scroll bars to move through the Staff view. Start and stop playback. Notice how the notes turn red as they play back. This can help you keep your place in a performance as you listen or play along.
3. Stop playback, and click on the button (in the upper left corner of the Staff view) to activate audio "scurbbing." Now drag your mouse over the notes in the Staff view to hear them audition. Watch as the notes turn red when you scrub them. Audio scrubbing also works like this in the Piano Roll view.

Adjusting Fader Levels

Cakewalk Express includes a 16-track Faders view. These General MIDI faders give you real-time control of Volume, Pan, Chorus, and Reverb levels for tracks 1 through 16. Each fader row also includes a Solo and Mute button for that track. You can adjust fader levels for playback only, or you can record your fader movements and save them as part of your song file.

✳ **Your sound card or MIDI instrument must support Volume, Pan, Chorus, and Reverb for the Faders to have any audible effect.**

1. Rewind boogie.wrk to the beginning.
2. From the main menu, select **View | Faders**. Three active fader rows appear in the Faders window from left to right for tracks 1, 2, and 3 respectively (one slider and three knobs per fader row). This is because tracks 1–3 all have MIDI port and channel assignments, even though track 1 is currently blank.
3. Click on the **Play** button to begin playback.
4. Drag the track 2 **Volume** slider up and down while the song plays. You should hear the volume change for that track.

...Adjusting Fader Levels, cont'd.

5. Click and rotate the **Pan**, **Chorus**, and **Reverb** knobs for track 3 during playback.

6. Click the **Solo** and **Mute** buttons on and off for tracks 2 and 3.

✳ **If you had the Record box checked, your fader movements would be recorded into the Cakewalk tracks. The faders would update during playback to reflect the recorded Controller data. For more information on using faders, see Faders View in the Online Help.**

Recording

Now try recording a track yourself. It doesn't have to be an inspired solo that fits well with boogie.wrk. You can just try making a little noise! If you want to **record a track using the Virtual Piano**, see the following section. If you want to **record a track with an external MIDI keyboard**, skip ahead to that section.

Recording with the Virtual Piano

The Virtual Piano turns your PC's keyboard and mouse into musical instruments. It's a great way to create music if you have a Windows sound card but do not have an external MIDI controller or synthesizer.

In order to use the Virtual Piano for this recording exercise, you need to have both **Cakewalk and the Virtual Piano set up** as described in Chapter 1. Please refer to that chapter if you have not already done so. You can also close the Staff view for now by double-clicking on the upper left corner of the Staff window.

✳ **CTRL-K toggles you between Cakewalk and the Virtual Piano.**

1. Select track 1 of boogie.wrk (named "Play-thru track") by clicking on the Name field. This track is already set up for you to record on.
2. Click on the Rewind button on the Control bar to get to the beginning of boogie.wrk.
3. Click on the Record button.
4. You will get a four-beat count-in before recording starts.
5. Before the four-beat count-in is completed, click on the Virtual

...Recording with the Virtual Piano, cont'd.

Piano window (or type CTRL-K) to activate it. Any notes you hit before the count-in completes will be recorded, but are placed at the time recording actually starts, so it doesn't matter if you start playing a little early.

6. Begin **playing the Virtual Piano** using your computer keys or mouse. You can hear the original tracks playing back as you record your new track. Don't be too concerned about sounding good at this point. The purpose here is to get familiar with the recording process.

7. When you want to stop recording, click on Cakewalk's Record button. Now continue to the section in this chapter titled **After Recording a Track**.

Recording from a MIDI Keyboard

First, make sure that Cakewalk routes what you play on the keyboard to a MIDI channel your synthesizer is set to respond on:

1. Select track 1 of boogie.wrk, named "Play-thru track."
2. Try pressing a key on your synthesizer keyboard.

If you can't hear any sound, change the MIDI channel number using the computer's PLUS (+) and MINUS (-) keys while you're pressing synthesizer keys. Do this until you hear some sound.

✳ **If you don't hear sound on any of the 16 MIDI channels, you may not have the MIDI cables connected properly. Refer to the Connect Your MIDI Equipment section in Chapter 1.**

3. Rewind to the beginning of boogie.wrk.

✳ **After the next step, several things happen quickly. You may want to read ahead up to step 5 before actually starting recording.**

4. To start recording, click the **Record** button in the Control bar.

The metronome starts beeping. There is a four-beat count-in before recording starts. Any notes you hit now are included, but placed at the

...Recording from a MIDI Keyboard, cont'd.

time recording actually starts, so it doesn't matter if you jump the gun a bit.

5. Play something on your MIDI instrument. For now, don't be too concerned about what you play. You just want to test out the recording function.

You can hear the original tracks playing along with you as you record. Keep recording new material beyond the end of the existing song if you like.

6. When you want to stop recording, click the **Record** button again.

As with playback, the same button turns recording on and off. So does pressing the computer keyboard's spacebar.

✳ **To discard a recording "take," use the Undo Recording command in the Edit menu (Redo works, too). You can toggle between Undo and Redo as many times as you like.**

After Recording a Track

Notice that the screen is different. The track on which you recorded has automatically been set to "playing" mode (the **m** is now a ü). Also, the right half of the Track/Measure view shows that there are events in the measures of the track—that's what you just recorded.

Now click on the **Rewind** button, and then the **Play** button. You should hear your new track playing along with the original tracks. If you like, go ahead and record other tracks.

Points and Tips to Remember About Recording

- If you record on a track that already has something on it, Cakewalk merges or "blends" the recorded material with the existing material.
- You can start recording from any point in a song. You don't have to rewind first, even though we did so in our example.

Saving Your Music

- **If you want to save your newly recorded track on boogie.wrk, you should save it under a different file name. This way you will always have the original version of boogie.wrk that you can use again.**

  It‘s important to save your work to a disk file. If you don‘t, you lose it when you exit the program. For the same reason, it‘s good to get in the habit of saving your work frequently, just in case a power failure or other disaster should wipe out the work in the computer.

  When you load a song from disk, the original still remains on disk, so you don‘t have to save your song again if you don‘t make any changes to it. For instance, if you just load a file and play it back without recording anything new, you don‘t have to save it.

  Cakewalk automatically checkt to see if you‘ve changed the song since you loaded it. If you have, and you try to exit the program without saving, Cakewalk stops you and gives you a chance to save.

- **You can tell whether the file has changed by looking at the file name in the title of the main window: if there is an asterisk* after the name, the file has changed.**

...Saving Your Music, cont'd.

Try saving your changes now.

1. Choose the **Save As** command from the **File** menu.

Cakewalk displays the Save As dialog box.

2. Type the file name Boogie2 and click **OK** or press ENTER.

The pointer changes to an hourglass while Cakewalk writes the file to disk.

If you had given the original name BOOGIE or the name of any other file that already exists, Cakewalk would check with you first before replacing it. If you decide to replace a file, the existing version is erased and replaed by your new changes. So be sure to click **No** and resave the file under a different name if you want to keep the original version intact.

Cakewalk .WRK Files vs. Standard MIDI Files

When the **File | Save As** dialog box appears, you will notice a File Type option in the lower left corner. You can save any file as a Cakewalk song file (.WRK), a Cakewalk template file (.TPL), or as a Standard MIDI

...Saving Your Music, cont'd.

File (.MID). Always save your work as a Cakewalk song file or template unless you need to use your song with another program that requires MIDI files. Some Cakewalk information can't be stored in MIDI files and will be lost when you save in that format.

Opening Other Views

At this point, you may want to begin exploring the other song files included with Cakewalk Express, and try some of Cakewalk's other editing views—like the Piano Roll, Controller, Event List, and Tempo views.

Load any of the included song files and, from the **Track/Measure** view, select a track. Then select the **View | New** command, and choose one of the listed views. For complete descriptions of these views and their editing tools, press F1 while in the editing view to get Online Help on that topic.

Ending a Cakewalk Session

To quit Cakewalk, select the **File | Exit** command.

Summary

You now know how to:

- Start Cakewalk Express
- Understand the screen layout
- Navigate the Track/Measure view
- Choose commands
- Load a song file from a disk file
- Change the tempo
- Mute a track
- Loop a track
- Adjust fader levels during playback
- Play and rewind a song
- Record a track using the Virtual Piano
- Record a track using an external MIDI keyboard
- Save a song to a disk file
- End a Cakewalk session.

You can create a lot of music using just this basic set of operations. In the next chapter, you'll learn some basic Cakewalk editing techniques.

Chapter Topics

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

Overview

Load Rowrow.wrk

The Measure Pane

Make Four Melodies out of the Original

Drag and Drop

Orchestration

- Setting the MIDI Channel
- Setting the Starting Patch

Other Track Parameters

Overview

The previous tutorial covered the basics of using Cakewalk: loading, saving, playing, and recording Cakewalk song files.

This chapter introduces you to some of Cakewalk's editing commands. It assumes that you learned in the previous tutorial how to choose commands from menus, how to load a file, and how to start and stop playback. It also assumes that you have your sound card or MIDI instrument set up as described in Chapter 1.

For this tutorial, we use the theme from Row, Row, Row Your Boat and create a complete four-part round using Cakewalk's editing commands. This simple exercise teaches you about using some of Cakewalk's basic editing commands.

Load Rowrow.wrk

Begin by loading the song file **rowrow.wrk**. This file contains the four-measure theme on track one.

Load it now. Click on the **Play** button or press the SPACEBAR to start playback, and listen to the theme.

The Measure Pane

Because it gives you a simplified view of your song, the Measure pane—the right half of the Track/Measure view—is especially suited for cutting, copying, and pasting whole measures.

In the upper left-hand corner of the grid, you can see four rounded dots. This shows you that track 1 has events in the first four measures.

Make Four Melodies out of the Original

Now add three repetitions of the four-bar theme by using the **Copy** and **Paste** commands.

Mark Track 1

First, mark (or select) the four measures:

1. Point to the first measure.
2. Press and hold the left mouse button.
3. Drag to the right until you get to the fourth measure. Notice that as you drag, the cells you've dragged over are displayed in reverse, showing you that you are selecting the measures.
4. When you get to the fourth measure, release the mouse button.

Notice that the From marker on the Control bar is set to 1:01:00. That is where you started dragging. The Thru marker is set to 4:04:119, the end of the measure where you stopped dragging.

Use the Copy Command

1. Choose **Copy** from the **Edit** menu. Cakewalk displays a dialog box.

...Make Four Melodies out of the Original, cont'd.

The default values are just what we want. Notice that the values of the From and Thru markers are proposed for the From and Thru items of the dialog box. You will also notice various options you can check. Leave these options alone for now.

We want to copy events from the one selected track. For this tutorial, we don't need to concern ourselves with using an Event Filter, Tempo and Meter/Key changes, or Markers.

2. Click **OK** to accept what is in the dialog box.

The Copy command places a copy of the region you marked into the scrap buffer.

Paste 3 More Repetitions

Now we want to paste in three additional copies of the theme.

1. Click measure 5 of track 1, the first blank measure.

Notice that the **Now** time, at the left end of the Control bar, says 5:1:000.

2. Choose **Paste** from the **Edit** menu.

...Make Four Melodies out of the Original, cont'd.

Cakewalk displays the Paste dialog box. Notice that the **Now** time is automatically loaded into the **To Time** item. We want to paste three more repetitions. So, we want to change the Repetitions item to be 3, not 1.

3. Type 3, or use the up arrow button to increase the value. The UP arrow key won't do this, but the PLUS (+) key will.

Notice that the dialog box has checked **Events - 1 unblank track**. It knows that the scrap buffer contains the events from our Copy. It hasn't checked Tempo changes, Meter/Key changes, or Markers because we didn't copy those.

The default option here is Blend Old and New material. Remember that a sequencer contains events at various times, and there can be more than one event at the same time. You may at times want to "blend" notes, laying one series of events on top of another. The other options—replacing the old material and sliding over the old material—can be useful, too. In this example, it doesn't matter which option we choose because there is no existing material in the track at measure 5.

4. Click OK.

...Make Four Melodies out of the Original, cont'd.

The Paste command inserts three repetitions of the scrap buffer into the song. Notice that now there are sixteen measures in track 1.

Test Drive

At this point, perhaps you want to hear the results. **Rewind**, then **Play**. The theme of Row, Row, Row Your Boat plays four times, for a total of sixteen measures.

Drag and Drop: Copying Track 1 to Track 2

Now we want to add another part playing the theme one measure behind the first track. We can copy all of track 1 to track 2.

Mark Track 1

First, select all sixteen measures of track 1.

1. Click the cell for measure 1, track 1.
2. Drag to the right until you select all sixteen measures.

Drag and Drop

Now we'll learn a faster way to copy and paste measures. You can do this by dragging and dropping.

You've selected measures 1 through 16 of track 1. Now do the following:

1. Press and hold the CONTROL key.

If you don't hold down the CONTROL key, you will drag-move instead of drag-copying. The original won't be left behind.

...Drag and Drop: Copying Track 1 to Track 2, cont'd.

2. Click measure 1, and hold down the mouse button.

The pointer changes to the drag-copy pointer, and Cakewalk displays Drag a copy of selected measures to new position on the message line. (You can release the CONTROL key now, if you like).

3. Drag the pointer to track 2, and to the right to measure 2. Remember to hold down the mouse button while doing this!

4. Release the mouse button.

Cakewalk displays the Drag Copy dialog box. Since you are copying material to an empty track, the option doesn't matter.

5. Click OK.

Voilà! Now there are sixteen measures of material starting at measure 2 of track 2.

6. Add two more parts, each starting a measure later.

Orchestration

Most sound cards and MIDI instruments can respond to multiple MIDI channels simultaneously. Typically, 16 channels are available. This allows you to hear multiple instrument sounds or patches play back at the same time. If you have a multi-channel sound card or instrument, we can practice some simple orchestration.

What we want to do is have Cakewalk send out each track on a separate MIDI channel. This lets us set up a separate instrumental sound on each MIDI channel, which we can do using MIDI patch changes.

Setting the MIDI Channel

The Channel parameter lets you force a track to go out on a particular MIDI channel.

1. Set each of the four tracks to a different MIDI channel that exists in your setup. For each track, click its Channel column, type the number, and press ENTER.

...Orchestration, cont'd.

You can also use the PLUS and MINUS keys.

Press:	To:
PLUS (+)	Add one
MINUS (-)	Subtract one

2. Try playing the song again. If a part is missing, you've assigned its track to a MIDI channel that doesn't exist in your setup.

Setting the Starting Patch

The Patch parameter lets you specify a starting patch for each track.

✳ **MIDI uses numbers from 0 to 127 to select patches. Cakewalk also lets you assign a list of patch names to use instead of numbers. When you first install Cakewalk, it uses the General MIDI list of patch names, which is appropriate for many sound cards and synthesizers. But you can use the Settings | Instruments command from the main menu to assign other patch name lists.**

You can change the Patch parameter by moving the highlight to that column of a track and using the following keys:

...Orchestration, cont'd.

Press:	To:
PLUS(+)	Add one
MINUS (-)	Subtract one
CLOSE BRACKET (])	Add 10
OPEN BRACKET ([)	Subtract 10

Other Track Parameters

There are many other parameters besides Patch and Channel in the Track/Measure view. You can specify a pitch or velocity transposition, a timing offset, a track name, and more. All of these parameters are described in the Online Help under Track/Measure View.

Conclusion

This completes our basic editing tutorial. You should now know how to:

- Select measures in the Measure pane.
- Copy tracks with the Copy command.
- Paste material with the Paste command.
- Drag and drop selected measures.
- Set a MIDI channel for a track using the Chn parameter in the Track pane.
- Set a starting patch for a track using the Patch parameter in the Track pane, and associate the Patch number to a patch name list.

You're well on your way to becoming a skilled Cakewalk user. For more information on any Cakewalk Express feature, select Help | Contents from Cakewalk's main menu. Or press F1 from anywhere in the program to get specific help on your current Cakewalk activity.

Troubleshooting & Tech Support

Chapter Topics

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

Troubleshooting

Technical Support

Troubleshooting

I try to record, but nothing happens

Symptoms

Cakewalk does not record notes from your keyboard.

Causes

The most common mistakes are easy ones to make:

- Reversing the MIDI cables.
- Not highlighting a MIDI In device in the Input Port(s) part of the **Select MIDI Devices** dialog box. If you are only using the Virtual Piano for MIDI input, make sure you have selected it as a MIDI Input device.
- Installing more than one MIDI interface driver with the **Drivers** option of the Windows Control Panel if you have only one installed MIDI card.

...Troubleshooting, cont'd.

Solutions

Check your **MIDI cable connections**. Make sure to connect the MIDI Interface or sound card's jack labeled OUT to the keyboard's receptacle marked IN, and the IN jack to the OUT receptacle, as shown in the illustrations.

- Review your **driver setup**, as described in Chapter 2, to make sure that you have selected at least one MIDI In device, and that you are connecting your cable to the selected device.

I did all that, but *still* nothing happens

Symptoms

Cakewalk does not seem to record notes from your keyboard, even though you've double-checked your connections and drivers. Or, the system locks up when Windows starts (in Windows 386 Enhanced Mode) or when Cakewalk starts (in Windows Standard Mode).

...Troubleshooting, cont'd.

Causes

This might be due to a conflict over the Interrupt Request (IRQ) that the sound card or MIDI interface uses to alert the computer when incoming data arrives. The MIDI interface cannot be set to use the same IRQ number as some other device in your computer. Examples of other things that may conflict with the card include:

- A bus mouse. (A bus mouse comes with a card that you insert in an expansion slot of your computer, in contrast with a serial mouse, which simply plugs into an existing serial port of the computer.)
- An EGA or VGA card, drawing tablet, scanner, serial printer, CD-ROM drive, or any other device set to generate interrupts on the same IRQ as your card, most commonly IRQ 2.

Test

If possible, remove the other device that may be causing the conflict, such as the bus mouse card. Try running Cakewalk again. If the problem disappears, you're on the right track.

...Troubleshooting, cont'd.

Solutions

The solution is to change the IRQ number of either the MIDI interface or the other device. If you change the IRQ of the MIDI interface, be sure to run Windows Control Panel, select the driver for the device, and click Setup. (For UltraSound, choose the UltraSound & MIDI Synth driver; or use the UltraSound Configuration utility.) In the dialog box, enter a number to match the new IRQ number you have set on the MIDI interface. Restart Windows for your change to take effect.

Please consult your sound card or MIDI interface documentation regarding its default IRQ settings.

Technical Support

Sooner or later, you will have a question. We are eager to help you get the most value and satisfaction with Cakewalk music software.

Before you call, please...

• Fax or mail in your registration card today! Only registered Cakewalk owners can call the Twelve Tone Systems technical support line.

• Refer to Cakewalk's Online Help system. Press F1 from anywhere in the program, or select Help | Contents from the main menu.

• Do some experimenting. Try to narrow down your situation to one or two specific questions or problems.

• Have this manual with you, and try to use a phone near your computer.

• Call our technical support phone line (617-924-6478) Monday through Friday, 1 PM to 6 PM Eastern Standard Time.

• You can also send us your registration card and receive technical support via fax (617-924-6657) 24 hours a day.

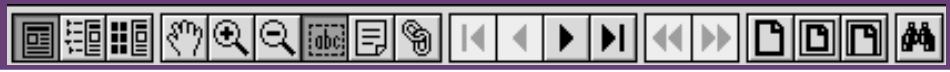
...Technical Support, cont'd.

When faxing a technical support question, describe your setup and problem in detail, and include your name, serial number, and fax number. We will reply by fax generally within 24 hours during weekdays.

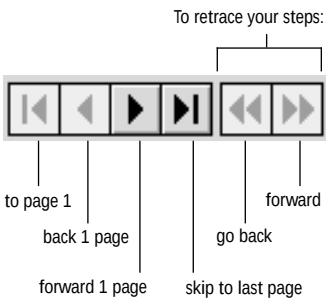
Now on CompuServe

You can reach us on CompuServe; type "GO MIDIAVEN" and switch to our section (number 3). We try to answer questions within 24 hours during weekdays. There are also a variety of files you can download. Type "GO MIDI" for information on general MIDI topics and products.

How to Use this Guide



Navigating Buttons



Scroll Bar

Click the up arrow or drag the slider up to move back.

Click the down arrow or drag the slider down to move forward.

This guide is designed to make information easy to find. Read it "cover to cover" like a book if you like. Use the **navigating buttons** or the **scroll bar** to page through the guide.

Click the **Find** button to search for a specific topic.

Click the **Bookmarks** button to view the complete Contents list.

In the Contents ("Bookmarks") list, click the triangles to view subtopics, and double-click a topic to skip to that page in the guide.

Click the **Thumbnails** button to view small previews of each page.

Click the **Page View** button to return to the default view.

Click the **Resize** or **Zoom** buttons to change the page view size.

Use the **Hand** tool to move a document page on-screen when it does not fit within the window. Drag the hand tool in the direction you want to move the page.

Use the **Text** tool to select text to copy.